

OCEANDocs AND OPEN SCIENCE DIRECTORY: TWO FACETS OF THE INFORMATION POLICY OF UNESCO/IOC-IODE

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Abstract: The International Oceanographic Data and Information Exchange (IODE) of the Intergovernmental Oceanographic Commission of UNESCO (IOC) has developed, in the past five years, the tools for a modern information policy focused on increasing accessibility of scientific literature in the field of marine science and oceanography with the help of partners such as Hasselt University Library and EBSCO.

With the OceanDocs repository, originally an African project called OdinPubAfrica, the IOC/IODE community and especially developing countries, received a platform to make publications available worldwide. The Open Science Directory, a directory of scientific journals freely available to institutes and scientists in developing countries, has a wider target group than the oceanographic community, but fits completely in the information policy of IOC-IODE¹. The Open Science Directory is developed with the support of EBSCO.

Keywords: institutional repository, publishing, open access

1. OceanDocs: The UNESCO-IOC/IODE repository for marine science
- 1.1. OdinPubAfrica, an African repository for marine science.

OdinPubAfrica was a FUST²-supported project of IOC/IODE, coordinated by Hasselt University developed in the framework of OdinAfrica³ (Aug. 2004 – Aug. 2006). A central repository was installed at the IOC/IODE offices in Ostend, Belgium for the member institutes of OdinAfrica.

¹ IOC: Intergovernmental Oceanographic Commission (<http://ioc-unesco.org/>) - IODE: International Oceanographic Data and Information Exchange (www.iode.org)

² FUST: Flanders UNESCO Science Trust Fund

³ The OdinAfrica network organizes the cooperation between the African member states of IOC in the field of marine science and oceanography (<http://www.odinafrica.org/>). Twenty five countries are involved.



The goals of OdinPubAfrica were:

- Facilitate publishing of research findings by African scientists (e-journal as well as e-archive) in marine science and oceanography thereby promoting African research and increasing access by African scientists to the international research forum
- Make scientific publications in the field of marine science and oceanography in Africa more easily and freely accessible
- Enhance the internal scientific communication
- Develop an OAI-compliant repository providing access to full-text publications created by scientists affiliated to African institutes

It was a deliberate choice to install a central repository at the IODE offices in Ostend for the whole OdinAfrica community. In the first place the Internet connection of most of the member institutes was limited. At the end of 2003, 64 kbps was qualified as a good connection in most cases. Therefore it was difficult to host a repository server locally. In addition it was felt that combining relatively small collections would constitute a more substantial body of records.

The DSpace software, which was selected for use by the project, allows every member institute to have its own identity, thanks to the community-collection structure of the software.

OdinPubAfrica: National In...
http://web.archive.org/web/20060831162533/kodeweb1.vliz.be/odin/handle/1834/1000

ODINPUBAFRICA
Scientific publications of ODINAFRICA

Francais English

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OdinPubAfrica > Egypt >

National Institute of Oceanography and Fisheries
Community home page

In: National Institute of Oceanography and Fisheries
Search for: Go
or browse: Titles Authors By Date

National Institute of Oceanography and Fisheries
3 Aben Mahassen Street
Moharem Bay
Alexandria, Egypt
Tel/Fax: + 203 3929900
Contact: Azza Mohamed Khaled, Information Manager
azzakhaled_2004@yahoo.com

Collections in this community

- Articles [7]
- Conference Paper [1]
- Equation Journal of Acoustic Research [201]

Recent Submissions

Physico-chemical characteristics of abu za'baal ponds, Egypt

Distribution and relationships of heavy metals in the giant clam (*Tridacna maxima*) and associated sediments from different sites in the Egyptian Red Sea Coast

Some factors affecting the primary production of phytoplankton in Lake Burullus

Active biological materials inhibiting tumor initiation extracted from marine algae

Some ecological factors affecting coral reef assemblages off Hurghada, Red Sea, Egypt

OdinPubAfrica: Kenya Mari...
http://web.archive.org/web/20060829011616/kodeweb1.vliz.be/odin/handle/1834/90

ODINPUBAFRICA
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Sign on to:
Receive email updates
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Edit Profile
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About DSpace

OdinPubAfrica > Kenya >

Kenya Marine and Fisheries Research Institute
Community home page

In: Kenya Marine and Fisheries Research Institute
Search for: Go
or browse: Titles Authors By Date

Kenya Marine and Fisheries Research Institute
P.O. Box 81651
Mombasa, Kenya
Tel. + 254 41475152/3
Fax: + 254 41475157
Contact: James Macharia, Information Manager
jmacharia@kmfri.co.ke
http://www.kmfri.co.ke

Collections in this community

- Articles [19]
- Conference Papers [22]

Recent Submissions

Culture experiment on the growth and production of mud crabs, mullets, milkfish and prawns in Mtwapa mangrove Creek System in Kenya

Ecological studies of parasites of commercially important fish species along the Kenyan Coast

Establishment, spread and impact of *Neochetina* spp. on Water Hyacinth in Lake Victoria, Kenya

An integrated river basin planning approach - Nyando case study in Kenya

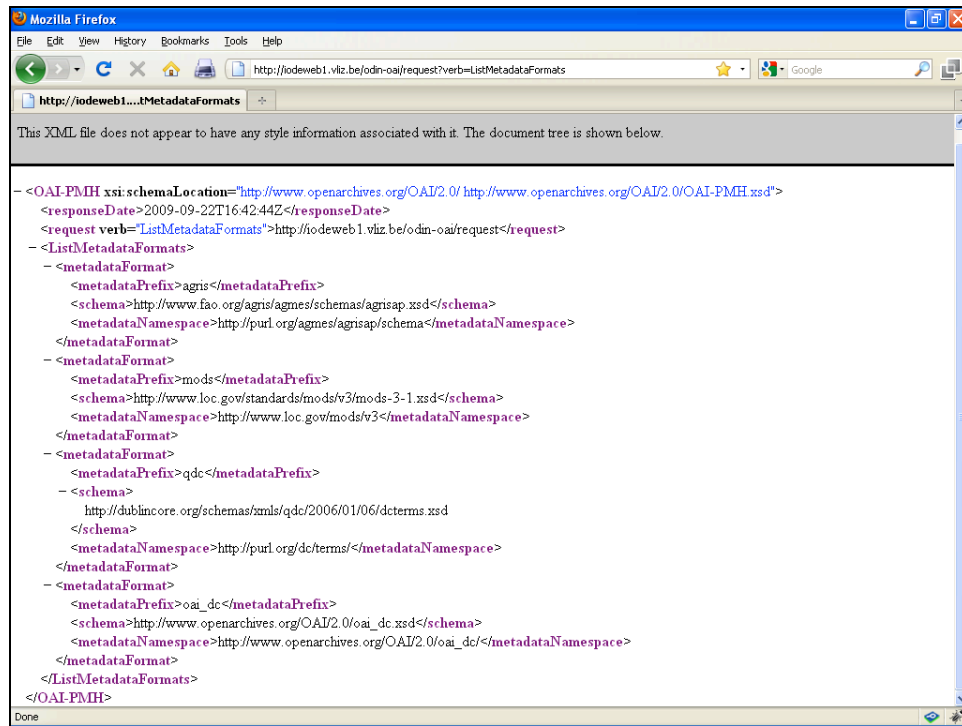
Preliminary assessment of the social, economic and environmental impacts of Water Hyacinth in Lake Victoria basin and status of control

The software was extensively customized. The basic metadata of DSpace was refined specifically for the needs of the community. The submission procedure of DSpace was changed in a type-based form. Based on this more refined metadata we have created specific views for journals and conferences. You can find examples at:

<http://www.uhasselt.be/bibliotheek/ao/aojournals.htm>



The more refined metadata scheme allows us to create a rich MODS for OAI export (see below), which is used for the specific views for journals mentioned above.

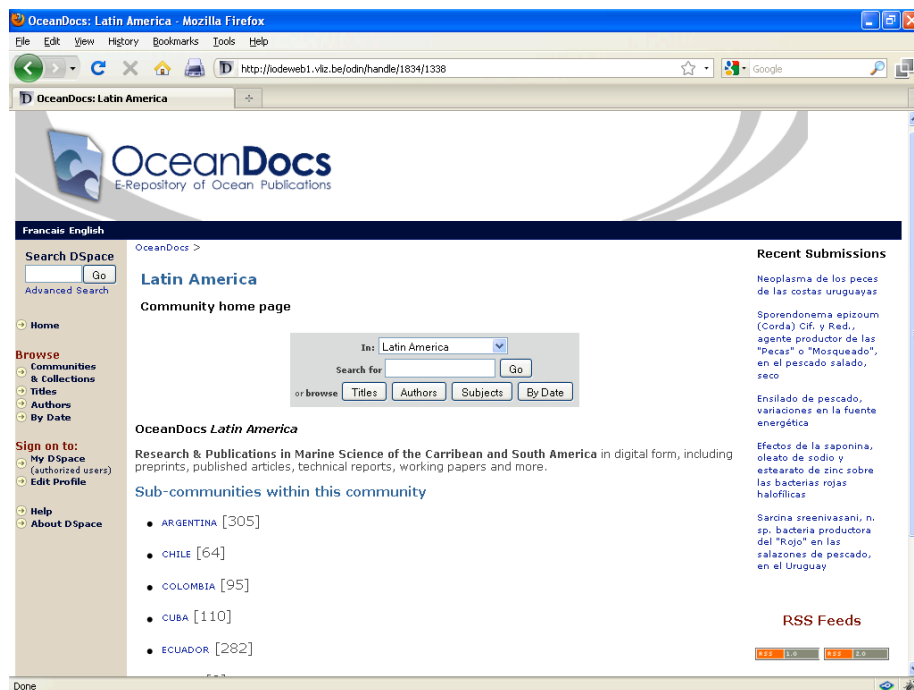


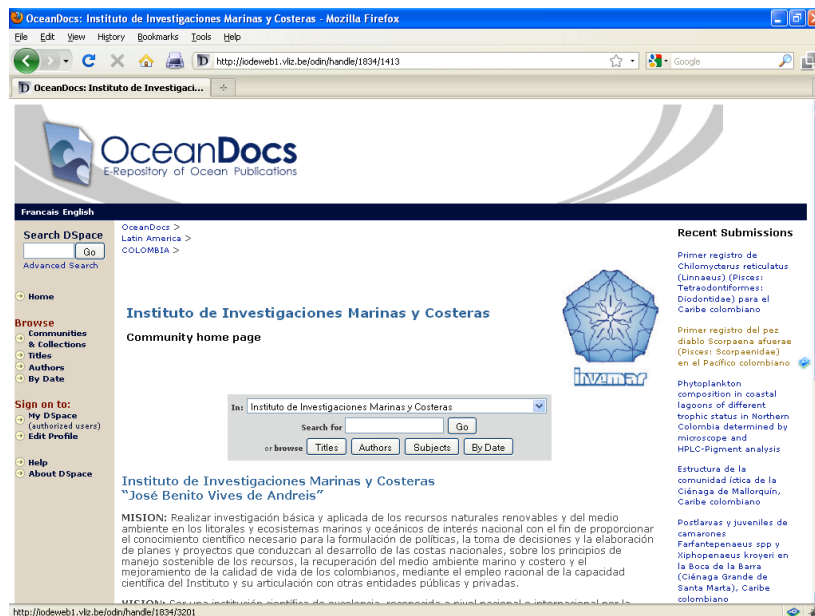
The project focused strongly on capacity building. During two training courses (21-25 February 2005 and 5-9 December 2005) held at the IOC Project Office for IODE, Oostende, Belgium, 16 information managers received training as local administrators of their institute collections. Two regional repository managers have also been trained to support further developments. All the training material is available at: http://www.uhasselt.be/bibliotheek/demos/oceandocs_e.htm

The information managers had the most difficult part to do as they had to convince the institute management and researchers to implement a local repository policy and submit their papers to the repository. At the end of the project in August 2006, 15 countries were involved and OdinPubAfrica contained 1122 documents.

1.2. From OdinPubAfrica to OceanDocs

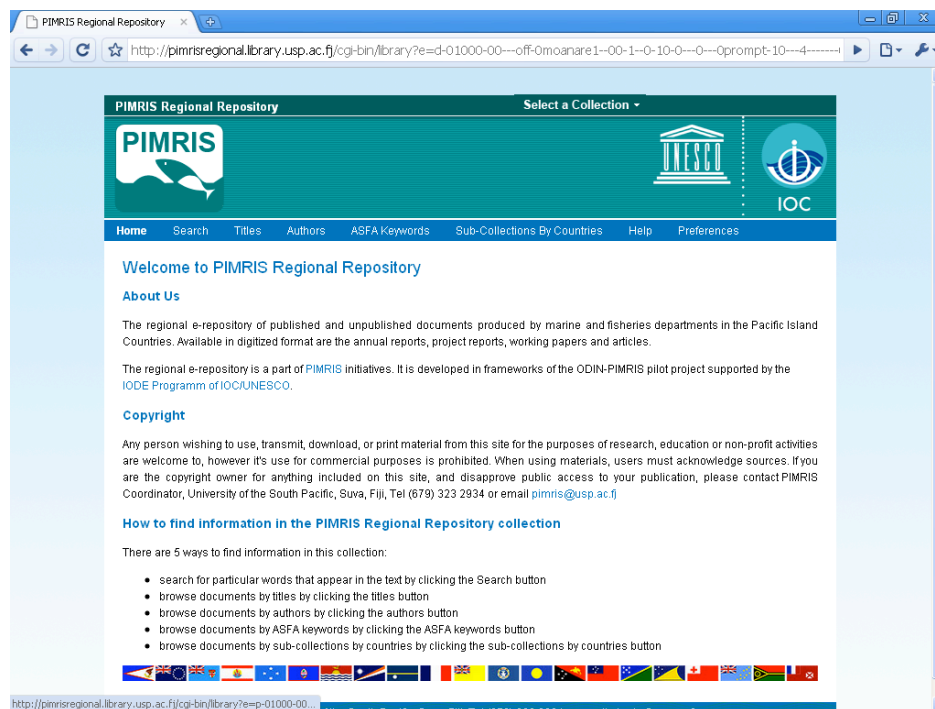
As a result of the success of OdinPubAfrica, repository development was identified by IOC/IODE as a priority action for its marine information management program. There was also interest of other regions (Latin America, Eastern Europe, Islands States in the Pacific) to join the repository project. In a first phase it was decided to extend the existing repository with new partners. Therefore a new name was necessary: OceanDocs. The Latin American partners stepped in – 13 new active partner institutes - and developed their own collections





At the same time, a network approach became inevitable. In some cases individual institutions wanted to develop their own repository; in other cases institutions wanted to use the central OceanDocs.

In the past two years two new repositories were created besides OceanDocs, which on itself involves 31 institutes from Africa and Latin America and contains 2820 documents. The IBSS E-Repository (Institute of Biology of the Southern Seas – Sevastopol, Ukraine) contains 848 documents (<http://repository.ibss.org.ua/dspace/>); and developed also the Central and Eastern Europe Marine Repository –CEEMAR (<http://www.ceemar.org/>), which covers 4 countries (Bulgaria, Poland, Russia and Ukraine). It started in October 2008 and already contains 527 documents of 11 institutes. The National Institute of Oceanography (Goa – India) has its own repository (<http://drs.nio.org/drs/>) with 3353 publications. PIMRIS (Island States in the Pacific) is developing a repository network for the South Pacific: PIMRIS Regional Repository (<http://pimrisregional.library.usp.ac.fj/> - 123 documents).



Besides these IOC activities the marine and aquatic community has set up many other repositories, e.g. Aquatic Commons (<http://aquacomm.fcla.edu/>) developed by IAMSLIC⁴. IFREMER⁵ has therefore developed a dedicated harvester: AVANO, the one-point access to oceanographic and aquatic literature (<http://www.ifremer.fr/avano/>).

To support the network activities, policies are worked out on the different levels from institute to network about content, metadata, author rights management and administration. There is a need of standards to create richer metadata. OceanDocs chooses for MODS, Agris AP besides Qualified Dublin Core. On the level of ontology's the ASFA thesaurus is implemented. The thesaurus plug-in, developed by FAO, will give us even more options. Geographic descriptors are available and the use of coordinates (ISO6709 format) is stimulated.

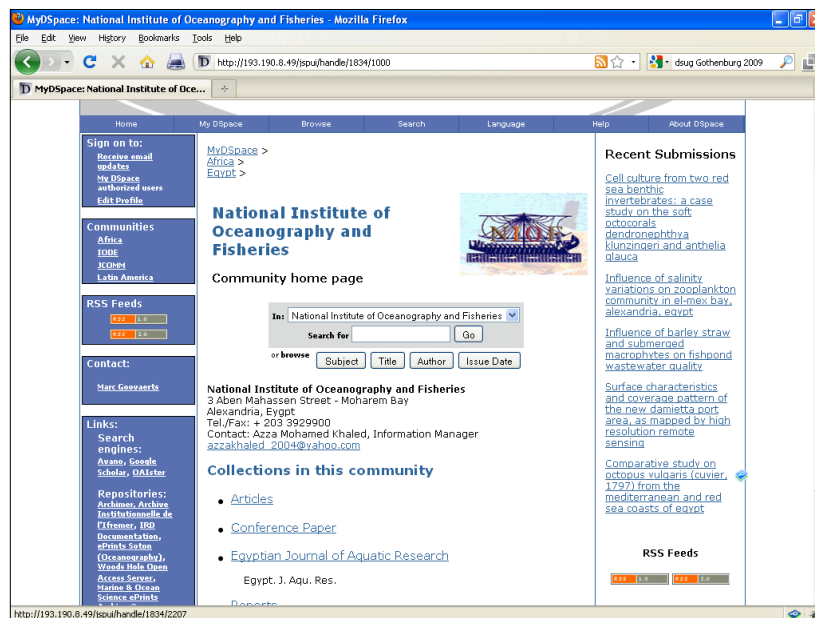
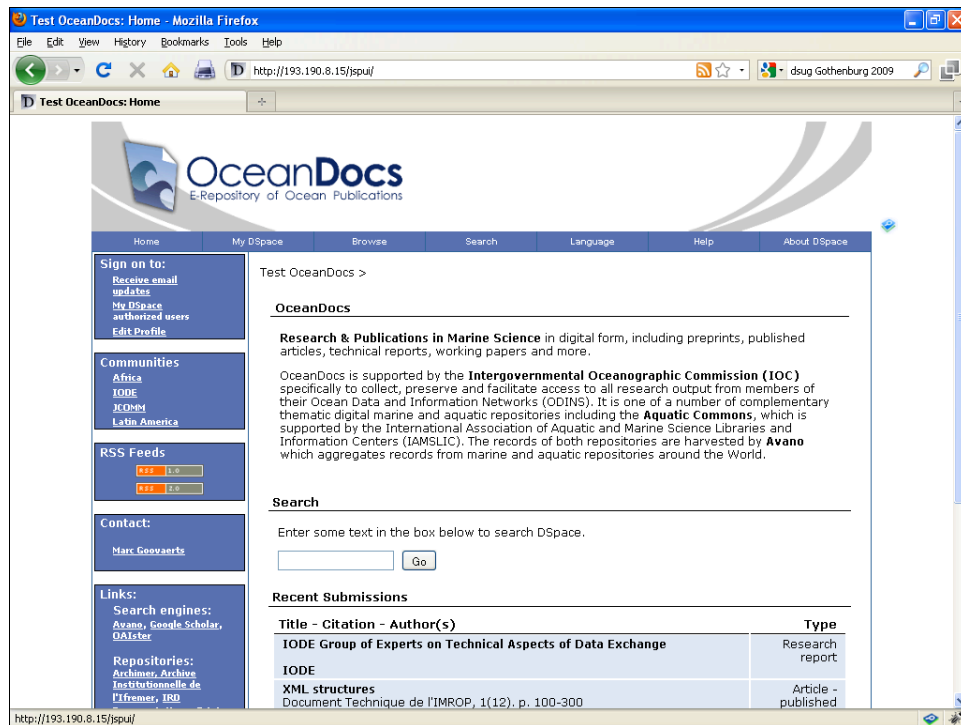
Also training material is regularly updated and will be available through another project of IOC – IODE, OceanTeacher (<http://www.oceanteacher.org/>).

Finally software development never stops. The newest version of OceanDocs, based on DSpace, 1.5.2, is finalized and will be installed in the next weeks. This version has

⁴ IAMSLIC: International Association of Aquatic and Marine Science Libraries and Information Centers (<http://www.iamslc.org>)

⁵ IFREMER: French Research Institute for Exploitation of the Sea (<http://www.ifremer.fr/anglais/>)

different new features. Besides OAI compatibility, it supports new standards like SWORD. An easy to install version on Windows and the source code will be available to the DSpace community in the next week. An upgrade to version 1.6, which contains an harvester function, will be ready in April 2010. In addition we will work together with FAO, which is working on AGRIS DSpace, a version that supports AGRIS AP and will also support the use of the AGROVOC thesaurus. These plug-ins will be available before September 2010.



These technical developments will support the development of the network. The easy-to-install version will make it easier for institutes to start their own repository. SWORD and other exchange tools will make it easier to manage metadata on different platforms: to exchange metadata between for example the catalogue, the ASFA-ISIS files and the OceanDocs repositories. The harvester function will collect metadata and where OAI-ORE is supported also the full-text (=mirroring) in the central OceanDocs server in Oostende, creating a unique entry to the whole IOC/IODE-network. Also links will be made between OceanDocs and other IOC information products like OceanExpert ([http:// www.oceanexpert.net](http://www.oceanexpert.net)) and OceanPortal (<http://www.oceanportal.org/>).

2. Open Science Directory

The idea of the Open Science Directory started with a request of IOC/IODE to create a database of all accessible journals in oceanography and marine science. The A-to-Z-list of EBSCO was the perfect tool to organize this collection. It was an easy step to extend this collection to a general directory of journals accessible in developing countries. With the help of EBSCO, it was possible to create the Open Science Directory, which started on February 14, 2008.

Access to scientific literature is very important for the scientific work of every scientist but is often extremely difficult to obtain in developing countries. As a result of different projects a large collection of e-journals is now available for researchers in developing countries. The number of Open Access Journals is growing steadily as we can see in the Directory of Open Access Journals. Major UN organizations like WHO⁶, FAO⁷ and UNEP⁸ have their specific programs for the scientific institutions in low-income countries: HINARI⁹, AGORA¹⁰, OARE¹¹. Finally a lot of universities, institutes and publishers have access to supporting programs. The most important are INASP-PERii¹², eIFL¹³, Highwire¹⁴, JSTOR's Developing Nations Access Initiative¹⁵ and eJDS¹⁶.

⁶ WHO: World Health Organization (<http://www.who.int/>)

⁷ FAO: Food and Agriculture Organization of the United Nations (<http://www.fao.org>)

⁸ UNEP: United Nations Environment Programme (<http://www.unep.org>)

⁹ HINARI: see <http://www.who.int/hinari>

¹⁰ AGORA: see <http://www.aginternetwork.org>

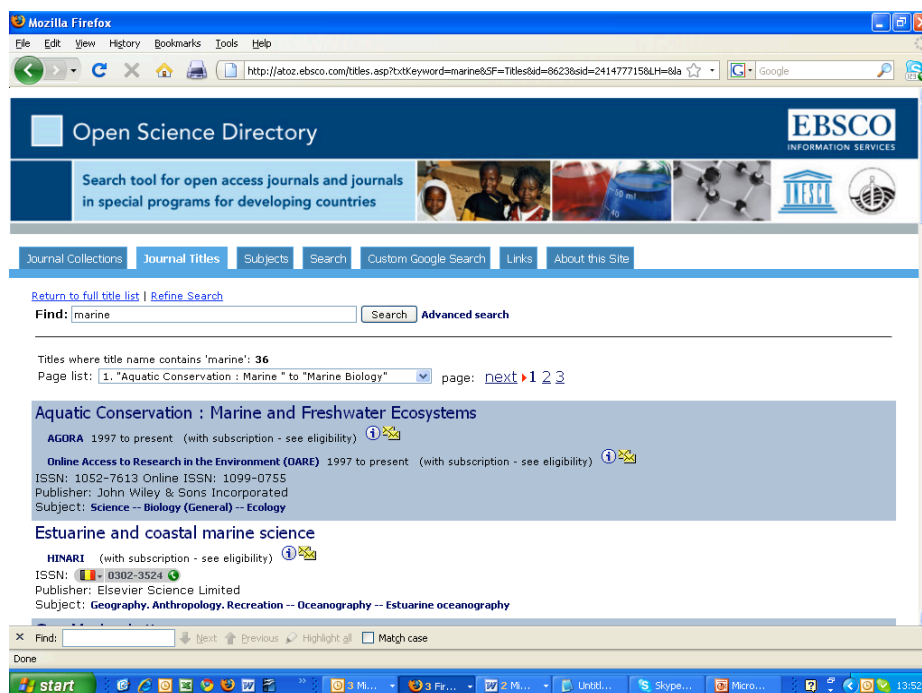
¹¹ OARE: see <http://www.oaresciences.org>

¹² INASP-PERii: International Network for the Availability of Scientific Publications (<http://www.inasp.info>)

¹³ eIFL: Electronic Information For Libraries (<http://www.eifl.net>)

¹⁴ Highwire: <http://highwire.stanford.edu/>

All these programs and projects have their own website and/or search engine. IOC/IODE and Hasselt University Library, with the support of EBSCO, is creating a single access point to all the journals contained in the different programs: **The Open Science Directory** – www.opensciencedirectory.org.



The goal of the Open Science Directory is:

- To create a global search tool for all open access and special programs journal titles.
- To enhance the access of these collections by creating direct links to the journals and their articles included in this A-to-Z-list.
- All information about the included journal collections is available at the websites of the included projects. These websites are directly accessible from the Open Science Directory.
- The Open Science Directory is not replacing these programs. Also the different programs have their own regulations and eligibility conditions.

Content

- Starting with 13.000 titles, the collection has grown to 18400 scientific journals. When all the special program journals will be included, the Open Science Directory will contain more than 25000 titles.

¹⁵ JStor Developing Nations Access Initiative:

<http://www.jstor.org/page/info/participate/new/fees/devNations.jsp>

¹⁶ eJDS: electronic Journals Delivery Service (<http://www.ejds.org/>)

- Open Science Directory contains collections of Open Access Journals (e.g. Directory of Open Access Journals) and journals in the special programs (Hinari, Agora, OARE, eJDS).

Target groups

- Institutes (universities, research units a.o.) and their researchers in developing countries.
- Every organization and researcher interested in these collections.

Statistics are showing a fast growing use of the service: 26.316 sessions in 2008, 147087 already in 2009. Every session takes about 30 minutes in which an average of 6 pages is consulted.

The first goal now is to complete the collection with the major collections of INASP-PERii and JSTOR's Developing Nations Access. Then, we will try to enhance the service, by negotiating the accessibility of the different journals. Now we have to send the user to the portal of the different projects, where they have to do the query again. With direct links through their proxy server, which guarantees the authentication and identification of the user (important for the publisher), it could be possible to access directly the journal with one search, but still with an authentication. Also we could use the Open Science Directory as a link resolver, adding it for example to Google Scholar. Therefore we will negotiate with HINARI, AGORA en OARE to enhance the accessibility to their collection and then install the link resolver functionality.

These realizations are only possible thanks to good cooperation between EBSCO, IOC and Hasselt University. Every partner uses their technical capacities and contacts to ameliorate the Open Science Directory.

Conclusions

With the Open Science Directory and the OceanDocs network IOC/IODE has developed the tools to manage the scientific output of marine researchers around the world and to facilitate access to scientific journals in developing countries. These tools are part of a larger family of data and information tools such as Ocean Data Portal (<http://www.oceandataportal.org>) OceanExpert (<http://www.oceanexpert.net/>), OceanPortal (<http://www.oceanportal.org>) and related training tools available through OceanTeacher (<http://www.oceaneacher.org>).

Diepenbeek, September 30, 2009



About Hasselt University

Hasselt University is an independent university characterized by the deliberate choice for dynamic and active university education, top research in spearhead fields, entrepreneurship and innovation and a clear international orientation. The university's leading principles are academic and scientific freedom, social commitment and ideological openness.

Hasselt University considers international orientation a cornerstone of its education and research. Thanks to the cooperation with the Flemish Interuniversity Council, efforts have recently been stepped up to promote the interaction of students and researchers with developing countries. The very successful postgraduate degrees in Applied Statistics and Biostatistics are examples of the practical implementation of our international education policy.

Finally, Hasselt University Library is involved in different programs of IOC and coordinating the repository project OceanDocs (<http://www.oceandocs.net>) .

About IODE/IOC

The IOC was created in 1960 to promote international cooperation and coordinate programmes in research, sustainable development, protection of the marine environment, capacity-building for improved management, and decision-making. It assists developing countries in strengthening their institutions to obtain self-driven sustainability in marine sciences.

The IODE system forms a worldwide service oriented network consisting of NODC's (National Oceanographic Data Centres marine information libraries and information centres that promote the management, exchange and dissemination of oceanographic data and information. The IODE programme also has a strong capacity building programme aimed at assisting developing countries to acquire the necessary skills to participate equitably in the IODE and other IOC programmes.

About EBSCO Information Services

EBSCO Information Services is the leading service provider for e-journal, e-journal and e-book package and print subscriptions, a suite of e-resource management tools, full-text and secondary databases and related services for all types of libraries and research organizations.

As the “e” agent of the industry, more than half of the subscriptions handled by EBSCO have an electronic component. EBSCO’s comprehensive solutions include proven systems to consolidate ordering, invoicing, claiming and renewals as well as assistance with licensing and registration requirements for our e-journal and e-package customers worldwide. EBSCO’s 31 regional offices, located in 22 countries around the world, serve customers in more than 200 countries and are staffed by information professionals who speak the local language and understand the particular challenges faced by librarians in their areas.

In its seventh decade of business, EBSCO upholds relationships with more than 79,000 publishers globally. These publisher relationships uniquely position us to streamline many aspects of the e-resource life cycle. EBSCO maintains a Dun & Bradstreet financial strength rating of 5A1, the highest awarded, which underscores the importance placed on providing outstanding, ethical service.